THE PROGRESSIVE FISH-CULTURIST

VOLUME 52, NUMBER 1, JANUARY 1990

1 Use of Silver Carp to Control Algal Biomass in Aquaculture Ponds
E. A. Laws and R. S. J. Weisburd

9 Effects of Brood-Stock Density on Production of Bait- or Forage-Sized Blue Tilapias
L. Torrans and A. Hiott

15 Vitamin Requirements of Blue Tilapias in a Recirculating Water System
A. J. Roem, R. R. Stickney, and C. C. Kohler

19 Biodegradability and Nutritional Value to Zooplankton of Selected Organic Fertilizers
A. Barkoh and C. F. Rabeni

26 Evaluation of Calcium Sulfate for Use in Aquaculture Ponds
R. Wu and C. E. Boyd

Communications

32 Removal of Benzocaine from Water by Filtration with Activated Carbon
G. E. Howe, T. D. Bills, and L. L. Marking

36 Effects of Ozonated-Water Reuse on Salinity Tolerance of Atlantic Salmon
H. A. Poston and R. C. Williams

41 Oxygen Transfer Efficiency of the Aquatector® and Application to Warmwater Fish Culture
G. T. Klar and N. C. Parker

45 Effect of Feeding Rate and Gas Supersaturation on Survival and Growth of Lake Trout
W. F. Krise, J. W. Meade, and R. A. Smith

51 Cryopreservation of Sperm as a Means to Store Salmonid Germ Plasm and to Transfer Genes from Wild Fish to Hatchery Populations
J. G. Cloud, W. H. Miller, and M. J. Levanduski

53 Occurrence of *Diplostomum* sp. (Trematoda: Diplostomatidae) in Pond-Reared Walleyes from Michigan
P. M. Muzzall, R. D. Sweet, and C. L. Milewski

Technical Notes

57 Experimental Vertical Incubation System for Centrarchid Eggs
M. D. Porter

59 Removable Biofiltration System for Use in Hatchery Troughs
J. R. Tomasso, D. J. Wise, and C. R. Weirich

61 Biological Filter for Conical Tanks
S. R. Craig, S. J. Hatch, and G. J. Holt

62 Effects of Leaf Litter on Survival and Growth of Juvenile Coho Salmon
S. J. Parker, A. G. Durbin, and J. L. Specker

65 Floating Hatching and Incubation System for Salmon in Rivers
I. D. Bruce, L. T. Newby, and W. B. Kirchner

69 **Guide for Authors**

VOLUME 52, NUMBER 2, APRIL 1990

73 Comparative Survival, Growth, and Reproductive Development of Juvenile Walleye and Sauger and Their Hybrids Reared under Intensive Culture Conditions
J. A. Malison, T. B. Kayes, J. A. Held, and C. H. Amundson

83 Effects of Water-Hardening Eggs in a Betadine or Erythromycin Solution on Hatching Success, Development, and Genetic Characteristics of Rainbow Trout
R. F. Leary and J. E. Peterson

88 Diets for the Intensive Culture of Arctic Grayling in Montana
G. A. Kindschi and F. T. Barrows

92 Development of a Carbon Filter System for Removing Malachite Green from Hatchery Effluents
L. L. Marking, D. Leith, and J. Davis

Communications

100 Growth Comparison between Fingerling Walleyes and Walleye × Sauger Hybrids Reared in Intensive Culture
G. L. Siegwarth and R. C. Summerfelt

105 Winter Polyculture of Rainbow Trout and Fingerling Channel Catfish
J. H. Tidwell and S. D. Mims

109 Survival and Growth of the Early Stages of Gulf Killifish in Various Salinities
P. W. Perschbacher, D. V. Aldrich, and K. Strawn

112 Preliminary Stocking Study of Juvenile White River Crawfish and Red Swamp Crawfish in Brackish-Water Ponds
W. G. Perry and W. C. Trimble

Technical Notes

117 Histological Effect of Tagging Chum and Coho Salmon Fry with Coded Wire Tags
J. K. Morrison, C. L. Coyle, and S. E. Bertoni

120 An Inexpensive Marking Technique to Assess Ingestion of Formulated Feeds by Larval Fish
J. E. Morris, L. R. D'Abramo, and R. C. Muncy

122 Marking Juvenile Pink and Chum Salmon with Hot Brands in the Form of a Binary Code
C. B. Murray and T. D. Beacham

124 Use of Common Salt to Treat Ichthyophthiriasis in Australian Warmwater Fishes
P. M. Selosse and S. J. Rowland

127 Use of Water-to-Water Transfers to Maximize Survival of Salmonids Stocked Directly into Seawater
T. A. Flagg and L. W. Harrell

130 Effects of Increased Dietary Marine Fish Oil on the Omega-3 Fatty Acid Content of Rainbow Trout Fillets
M. R. Turner, R. H. Lumb, J. L. West, and V. Brown

133 Inexpensive Monitoring of Equipment Operation in Long-Term Studies
S. J. Hamilton and N. L. Faerber

136 Inexpensive Sensors for a Hatchery Alarm System
N. H. McCarter

Book Reviews

140 Fish Culture in Warm Water Systems: Problems and Trends (*J. H. Grover*)

VOLUME 52, NUMBER 3, JULY 1990

141 Effects of Spectral Irradiance on the Early Development of Chinook Salmon
D. B. Dey and D. M. Damkaer

155 Temperature Effects on the Growth of Blue Tilapia in Intensive Aquaculture
R. W. Soderberg

158 Production of Fingerling Florida Red Tilapia (*Tilapia hornorum* × *T. mossambica*) in Floating Marine Cages
W. O. Watanabe, J. H. Clark, J. B. Dunham, R. I. Wicklund, and B. L. Olla

162 Use of a Fish Health Condition Profile in Assessing the Health and Condition of Juvenile Chinook Salmon
J. F. Novotny and J. W. Beeman

171 Comparison of Live Brine Shrimp Nauplii and Nonliving Diets as First Food for Striped Bass Larvae
C. D. Webster and R. T. Lovell

Communications

176 Iodophor Toxicity to Eggs and Fry of Fall Chinook Salmon
L. G. Fowler and J. L. Banks

178 Respiratory and Behavioral Responses of Juvenile Dolphin Fish to Dissolved Oxygen Concentration
M. M. F. Lutnesky and J. P. Szyper

185 Variability of Harvest Sizes of Channel Catfish as Related to Stocking-Size Variability
T. E. Schwedler, J. A. Collier, and S. A. Davis

189 Benzocaine as a Fish Anesthetic: Efficacy and Safety for Spawning-Phase Salmon
P. A. Gilderhus

192 Survival, Growth, and Body Composition of White Sturgeon Larvae Fed Purified and Commercial Diets at 14.7 and 18.4°C
P. B. Lutes, S. S. O. Hung, and F. S. Conte

197 Growth and Survival of Larval Razorback Suckers Fed Five Formulated Diets
H. M. Tyus and S. H. Severson

Technical Notes

201 Noninduced Spawning of Captive Striped Bass in Tanks
L. C. Woods III, J. G. Woiwode, M. A. McCarthy, D. D. Theisen, and R. O. Bennett

203 A Comparison of Second-Year Growth of Blue Catfish and Channel Catfish in Kentucky
J. H. Tidwell and S. D. Mims

205 Induced Spawning of Spotted Seatrout with Selected Hormone Preparations
R. L. Colura, A. F. Maciorowski, and A. Henderson-Arzapalo

207 A New Method for Early Ploidy Evaluation of Grass Carp Larvae
J. R. Cassani

Book Reviews

211 Red Drum Aquaculture (*S. A. Flickinger*)

VOLUME 52, NUMBER 4, OCTOBER 1990

213 Responses of Grass Carp, Stocked Intensively in Earthen Ponds, to Various Supplemental Feeding Regimes
T. J. Pfeiffer and R. T. Lovell

218 Performance of Rainbow Trout Fry Fed Supplemental Soy Lecithin and Choline
H. A. Poston

226 Effect of Body Size on Growth, Survival, and Chemical Composition of Atlantic Salmon Fed Soy Lecithin and Choline
H. A. Poston

231 Effects of Varied Rearing Temperatures and Feeding Regimes on Retention of Bismarck Brown Y Stain in Alevins of Chinook Salmon
R. D. Ewing, B. P. McPherson, and T. D. Satterthwaite

Communications

237 Yield Characteristics of the Free-Living Nematode *Panagrellus redivivus* in Different Culture Media
I. A. Radwin and D. B. Rouse

241 Factors Affecting Survival of Channel Catfish after Surgical Removal of Testes
A. N. Bart and R. A. Dunham

246 Comparison of Three Techniques for the Capture and Transport of Impounded Subyearling Atlantic Shad
T. W. H. Backman and R. M. Ross

252 Exogenous Introduction of Live Plankton—A Better Approach to Carp Growth than the Direct-Manure System
B. B. Jana and R. Chakrabarti

261 Determinations of Plasma Volume, Extracellular Fluid Volume, and Total Body Water in Channel Catfish
J. V. Kitzman, J. F. Martin, J. H. Holley, and W. G. Huber

Technical Notes

266 Blood Preparation for Flow Cytometry to Identify Triploidy in Grass Carp
R. T. Pine and L. W. J. Anderson

268 Growth Response of Fingerling Channel Catfish to Sheltered Feeding
J. A. Collier and T. E. Schwedler

270 Ineffectiveness of Winter Fertilization of Sport-Fish Ponds
L. Yuehua and C. E. Boyd

272 Anesthetizing Lake Trout with Tricaine (MS-222) Administered from a Spray Bottle
R. B. Kidd and G. D. Banks

273 Survival of Paddlefish Fingerlings Stocked with Large Channel Catfish
J. H. Tidwell and S. D. Mims

Comments

275 Simple Procedure for Decapsulating and Hatching Cysts of Brine Shrimp (*Artemia* spp.)
R. G. Howey; D. E. Campton and C. E. Busack

277 **Referee Acknowledgements**

278 **Index to Volume 52**

i **Table of Contents, Volume 52**